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EXAMINER

PARTON, KEVIN S

ART UNIT PAPER NUMBER

2153

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/870,302

Applicant(s)

RACIBORSKI ET AL.

Examiner

Kevin Parton

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 09/21/2004 have been fully considered but they are not persuasive. Please see the following reasons and the grounds of rejection below.
2. The applicant argues that the reference to Gurijala fails to teach the newly added limitation that the content tracker receives identifiers from origin servers directly. The argument is not persuasive because the content exchange system of Gurijala encompasses both the Central Name Server (CNS) and the web cache servers. The web cache servers receive the information on the origin server and forward it to the CNS, which functions as the content tracker. In doing this, the origin server information has been directly provided to the content exchange system and thus the content tracker.
3. The applicant further argues on page 9, paragraph 2, that the Gurijala reference fails to teach the storage of origin server information in a database. This argument is not persuasive because in column 6, lines 36-38, Gurijala clearly states that the URI for information is stored in the database. This identifies the origin server.
4. Regarding claims 5 and 20, the applicant argues that the Gurijala reference fails to show a content store divided into two sections, one wherein data is purged in favor of more recent data and another wherein data is stored indefinitely. The argument is not persuasive because the content store of Gurijala is logically separated into sections. Specifically, in column 6, lines 4-15, it is shown that some data may be frequently

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updated while other data is simply stored. This defines two logical sections for data in the content store.

5. All further arguments are not persuasive for the same reasons shown above.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 5-8, and 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Gurijala et al. (USPN 6,601,090).
8. Regarding claim 1, Gurijala et al. (USPN 6,601,090) teaches a content exchange system for caching content objects, the content exchange apparatus comprising:
- a. A content store comprising a plurality of content objects, each content object originating from one of a plurality of origin servers (column 4, lines 64-67).
  - b. A content tracker that determines the content objects stored in the content store and configured to receive identifiers from the plurality of origin servers (column 4, lines 51-53; column 5, lines 42-50).

- c. An origin server database comprising a list of the origin servers identified to the content tracker by the respective origin server (column 5, lines 42-50; column 6, lines 36-39).
  - d. A catalog of content objects stored in the content store (column 5, lines 1-4, 45-49; column 6, lines 36-39).
- 9. Regarding claim 5, Gurijala et al. (USPN 6,601,090) teaches all the limitations as applied to claim 1. They further teach means wherein:
  - a. The content store is divided into a first section and a second section (column 6, lines 4-15, 50-62). Note that the content store may have any number of logically separations for maintaining data.
  - b. The first section comprises a cache where less frequently requested content objects are purged in favor of more frequently requested content objects (column 6, lines 4-15, 50-62).
  - c. The second section comprises a file system where content objects remain stored in the content store for a period of time regardless of request frequency (column 6, lines 4-15, 50-62).
- 10. Regarding claim 6, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 1. They further teach a content controller, wherein the content controller finds a requested content object not presently retained in the content store (column 5, lines 25-40).
- 11. Regarding claim 7, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 1. They further teach a content controller, wherein the content

controller finds a requested content object not presently retained in the content store on one of: another content exchange and the origin server (column 5, lines 25-40).

12. Regarding claim 8, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 1. They further teach an information repository comprising status information related to the content exchange (column 5, lines 42-50; column 6, lines 36-39).

13. Regarding claim 15, Gurijala et al. (USPN 6,601,090) teach a system for caching content objects in a content exchange with means for:

- a. Storing content objects obtained from an origin server by the content exchange (column 4, line 67).
- b. Receiving information about the origin server from the origin server (column 5, lines 45-50).
- c. Storing the information in a database (column 6, lines 36-38).
- d. Determining a network address for the origin server using the database (column 5, lines 45-50).
- e. Contacting one of the origin server and another content exchange when a content object request results in a cache miss (column 5, lines 25-41).

14. Regarding claim 16, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 15. They further teach means wherein the database comprises an origin server identifier and an origin server address for each associated origin server (column 5, lines 45-50; column 6, lines 36-38).

15. Regarding claim 17, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 15. They further teach means wherein the storing step comprises a step of storing an origin server identifier and an origin server address for each associated origin server (column 5, lines 45-50; column 6, lines 36-38).

16. Regarding claim 18, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 15. They further teach means wherein the determining step comprises a step of querying the database for an origin server address associated with a provided origin server identifier (column 5, lines 15-50).

17. Regarding claim 19, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 15. They further teach means for:

- a. Determining if any other content exchange has at least a portion of the content object (column 5, lines 16-25).
- b. Requesting the portion if the portion is found on any other content exchange (column 5, lines 16-50).
- c. Requesting the portion from the origin server if the portion is not found on any other content exchange (column 5, lines 16-50).

18. Regarding claim 20, Gurijala teach a content exchange system for caching content objects comprising:

- a. A content store comprising a plurality of content objects, each content object obtained from one of a plurality of origin servers, the content store having a first section and a second section, the first section comprising a cache where less frequently requested content are

purged in favor of more frequently requested content objects, the second section comprising a file system having content objects which remain stored for a period of time regardless of request frequency (column 4, lines 64-67; column 6, lines 4-15, 50-62). Note that the sections are logically separated.

- b. A content tracker that determines the content objects stored in the content store (column 4, lines 51-53; column 5, lines 42-50).
- c. An origin server database comprising a list of the origin servers (column 5, lines 42-50; column 6, lines 36-39).
- d. A catalog of content objects stored in the content store (column 5, lines 1-4, 45-49; column 6, lines 36-39).

***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 2-4 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gurijala et al. (USPN 6,601,090) in view of Chase (EP 0877326A2).

21. Regarding claims 2 and 10, although the system disclosed by Gurijala et al. (USPN 6,601,090) shows substantial features of the claimed invention (as applied to claims 1 and 9, respectively), it fails to disclose means wherein the list of origin servers



is modified to exclude a particular origin server when a determination is made that the particular origin server is no longer available.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Gurijala et al. (USPN 6,601,090), as evidenced by Chase.

In an analogous art, Chase discloses a system for distributed caching on a network wherein the list of origin servers is modified to exclude a particular origin server when a determination is made that the particular origin server is no longer available (figure 4, element 400).

Given the teaching of Chase, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gurijala et al. (USPN 6,601,090) by employing the omission of origin servers from a server list when the origin server is no longer available. This benefits the system by stopping clients from trying to access unavailable servers and wasting computing time and network bandwidth.

22. Regarding claim 3, Although the system disclosed by Gurijala et al. (USPN 6,601,090) shows substantial features of the claimed invention, it fails to disclose means wherein the list of origin servers contains some origin servers that have no content objects stored in the content exchange.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Gurijala et al. (USPN 6,601,090), as evidenced by Chase.

In an analogous art, Chase discloses a system for distributed caching in a network wherein the list of origin servers contains some origin servers that have no content objects stored in the content exchange (figure 4). Note that the information sources notify the central processor when they come online regardless of their content.

Given the teaching of Chase, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gurijala et al. (USPN 6,601,090) by employing the inclusion of servers in the origin server list even if no content data is stored from those servers. This benefits the system by allowing information on frequently used servers to be saved even if no recent downloads have resulted in content being stored.

23. Regarding claims 4 and 11, although the system disclosed by Gurijala et al. (USPN 6,601,090) shows substantial features of the claimed invention (as applied to claims 1 and 9, respectively), it fails to disclose means wherein content objects associated with a particular origin server are removed from the content store when a determination is made that the particular origin server is no longer available.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Gurijala et al. (USPN 6,601,090), as evidenced by Chase.

In an analogous art, Chase discloses a system for distributed caching in a network wherein content objects associated with a particular origin server are removed from the content store when a determination is made that the particular origin server is no longer available (figure 4, element 400).

Given the teaching of Chase, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gurijala et al. (USPN 6,601,090) by employing the removal of a content object from the content store when the origin server is unavailable. This benefits the system by ensuring that users do not access old information from a closed site that is no longer correct or available.

24. Regarding claim 9, Gurijala et al. (USPN 6,601,090) teach a content storing system for caching content objects comprising:

- a. A first content exchange (figure 1).
- b. A second content exchange (figure 1).
- c. A content bus coupled to the first and second content exchanges (figure 1) wherein:
- d. The first content exchange comprises an origin server database comprising a list of origin servers identified to the content exchange by the respective origin server (column 5, lines 42-50; column 6, lines 36-39).

Although the system disclosed by Gurijala et al. (USPN 6,601,090) shows substantial features of the claimed invention, it fails to disclose means wherein the list of origin servers contains a plurality of origin servers that have no content objects stored in the first content exchange.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Gurijala et al. (USPN 6,601,090), as evidenced by Chase.

In an analogous art, Chase discloses a system for distributed caching in a network wherein the list of origin servers contains a plurality of origin servers that have no content objects stored in the first content exchange (figure 4). Note that the information sources notify the central processor when they come online regardless of their content.

Given the teaching of Chase, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gurijala et al. (USPN 6,601,090) by employing the inclusion of servers in the origin server list even if no content data is stored from those servers. This benefits the system by allowing information on frequently used servers to be saved even if no recent downloads have resulted in content being stored.

25. Regarding claim 12, Gurijala et al. (USPN 6,601,090) teaches all the limitations as applied to claim 9. They further teach means wherein:

- a. The second content exchange is divided into a first section and a second section (column 6, lines 4-15, 50-62). Note that the content store may have any number of logically separations for maintaining data.
- b. The first section comprises a cache where less frequently requested content objects are purged in favor of more frequently requested content objects (column 6, lines 4-15, 50-62).

- c. The second section comprises a file system where content objects remain stored in the content store for a period of time regardless of request frequency (column 6, lines 4-15, 50-62).

26. Regarding claim 13, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 9. They further teach means wherein the content bus transports a requested object not presently retained in the first content exchange from the second content exchange (column 7, lines 5-17).

27. Regarding claim 14, Gurijala et al. (USPN 6,601,090) teach all the limitations as applied to claim 9. They further teach a content controller, wherein the content bus transports a requested content object not presently retained in the first content exchange from one of the second content exchange and an origin server (column 5, lines 25-40; column 7, lines 5-17).

### ***Conclusion***

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parton whose telephone number is (571)272-3958. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Parton  
Examiner  
Art Unit 2153

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